

CURRICULUM VITAE

JOSÉ FRANCISCO RODRIGUES

1. **Born** in Lisbon (Portugal), 29 October 1956; Portuguese citizen, three daughters (*Inês*, 1983, *Sara*, 1986 and *Mafalda*, 2004) and one son (*Francisco*, 2004), married with *Isabel*, multilingual (Portuguese, English, French and Italian).
2. **Degrees** in Mathematics:
1978 - Licenciatura; 1982 - Doutoramento (PhD); 1988 – Agregação, University of Lisbon;
1980 - Doctorat Troisième Cycle in Mechanics, University of Paris VI.
3. **Career:** since 1976 with the Faculty of Sciences, University of Lisbon, as Teaching Assistant;
1980-81 - Assistant Associé ENSM/Univ. Nantes (France)
1982-87 - Auxiliary Professor, University of Lisbon;
1987-94 - Associate Professor, University of Lisbon;
1994-Present – Professor of Mathematics, University of Lisbon.
4. **Positions and Services:**
1989-94 - Director, *Centro de Matemática e Aplicações Fundamentais* (CMAF/Univ. Lisbon)
1990-94 - Vice-President, Portuguese Mathematical Society, delegate at the foundation of the European Mathematical Society (1990);
1992-94 - Member of the ASI/NATO Scientific Panel;
1993-97 - Chairman of the Steering Committee of the *Free Boundary Problems* Scientific Program of the European Science Foundation;
1993-2010 - Member of the Scientific-Museologic Committee of the Science Museum of the University of Lisbon;
1996-2005 - Member of Scientific Committee of European Post-Doctoral Institute for the Mathematical Sciences;
1998 - Member of several European Mathematical Society (EMS) Committees, since 2004 of the Electronic Publications Committee (1998-2006 of the Raising Public Awareness of Mathematics, former WMY2000 Committee, and 2002-2005 of the Committee for Applied Mathematics);
1998-02 - Director, *Centro de Matemática e Aplicações Fundamentais* (CMAF/Univ. Lisbon)
2002-2010 - President of the National Portuguese Mathematical Committee at the IMU;
2004 – Member of the French CNRS-Evaluation panel of Pau University Math. Laboratory;
2004-2006 – Member of *Centro de Matemática da Universidade de Coimbra*.
2006 and 2010 – Chairman of the Portuguese Delegations to the IMU (International Mathematical Union) General Assemblies (2006 – Santiago de Compostela, Spain; 2010 – Bangalore, India)
2007 – Member, *Centro de Matemática e Aplicações Fundamentais* (CMAF/Univ. Lisbon)
2007 – Portuguese member of the Experts Group of the OECD Global Science Forum Initiative “Mathematics in Industry”
2008 – Portuguese Delegate to the ICMI (International Commission on Mathematical Instruction) General Assembly, Mexico
2008-2011 – Director of the *Centro Internacional de Matemática* (CIM/Portugal)
2012 – Portuguese Delegate to the ICMI (International Commission on Mathematical Instruction) General Assembly, Seoul, Korea.
2013 President of the Scientific Users Committee of the Zentralblatt MATH.
2014 – Portuguese Delegate of the National Committee of Mathematicians to the Foundation of the EMELP (Espaço Matemático em Língua Portuguesa), Rio de Janeiro, Brasil.
2014 - present: President of the Mathematics Department of the Faculdade de Ciências da Universidade de Lisboa.
2016 – present: Director of the *Centro Internacional de Matemática* (CIM/Portugal).

5. Editorial Boards:

- 1991- Present - *Advances in Mathematical Sciences and Applications*;
- 1991 - Present - *Portugaliae Mathematica*;
- 1993-1997 *FBPNews* (Editor);
- 1999- Present - *Interfaces and Free Boundaries* (Co-coordinating Editor).

6. Prizes:

- 1986- A. Malheiros in Mathematical Sciences, Academy of Science of Lisbon, Portugal.
- 2004- Gulbenkian Basic Sciences prize, Fundação Calouste Gulbenkian, Portugal.

7. Membership:

- 1978 Portuguese Mathematical Society (SPM), American Mathematical Society (AMS)
- 1990 International Society for the Interaction of Mechanics and Mathematics (ISIMM)
- 1990 European Mathematical Society (EMS)
- 1994 Correspondent Member, 2009 Member of the *Academia de Ciências de Lisboa*

8. Supervision of PhD Thesis students in Mathematics (UL at the University of Lisbon):

- L.Santos, (UL from Univ. Minho), 1990 (*on Elliptic and Parabolic Unilateral Problems*)
- J.M.Urbano, (UL from Univ. Coimbra), 1999 (*on Free Boundary Problems*)
- L.Consiglieri, (UL Univ. Lisbon), 2000 (*on Mathematical Problems in Non-Newtonian Fluids*)
- F.Miranda, (at the Univ. Minho, colab. L. Santos), 2007 (*on Electromagnetism Problems Associated to Nonlinear Laws*),
- R. Teymurazyan (UL from Univ. Yerevan), 2013 (*on Obstacle Type Problems in Orlicz-Sobolev Spaces*).

9. Post-doctoral fellows mentored at CMAF/Univ. Lisbon:

- N.Chemetov, from Univ. Novosibirsk, 1991-92 (Fund. C.Gulbenkian fellowship)
- J.Liang, from Univ. Suzhou, 1992-94 (Fund.Oriente fellowship)
- S.Clain, from Ec.Polytec.Fed.Lausanne, 1995-96 (European Science Foundation fellowship)
- N. Igbida, from Univ. Franche Conté (Besançon), 1998-99 (CMAF/UL-FCT fellowship)
- Namkwon Kim, from Univ. Seoul, 1999-2000 (CMAF/UL-FCT fellowship)
- T Shilkin, from Steklov Math. Inst. St.Petersburg, 2002 (CMAF/UL-FCT fellowship)
- F Chalub, from IMPA, Rio de Janeiro, 2003-2005 (CMAF/POCTI-project fellowship)
- H Tavares, from Univ Lisbon, 2011-2012 (CMAF/UL-FCT fellowship)
- M. Astudillo, from Univ. of Coimbra, 2013 (FCT fellowship)

10. Co-ordination of research projects:

- 1986-88 Project n° ST2J-0173-5-P, SCIENCE-CEE/Univ. Lisboa (local PI), *Mathematical Models of Phase Transitions and Numerical Simulation*, Univ.Augsburg (K.-H.Hoffmann, global PI);
- 1987-90 Projecto n° 87046 (Programa mobilizador) JNICT/CMAF-INIC: *Mudanças de Fase em Mecânica Não Linear* (PI);
- 1990-93 Projecto n° 43/M/P/90 “Programa Ciência”, JNICT/CMAF-INIC/UL: *Laboratório de Matemática Computacional* (Medida M) *Apoio às Infra-estruturas Informáticas do Complexo II* (Medida P), (PI);
- 1993-94 Stride Proj.437.02 de apoio ao Laboratório de Matemática Computacional, Universidade de Lisboa (PI);
- 1993-95 Project “*Mathematics as an Industrial Resource*”, co-ordinated by Oxford University, EEC/Human Capital and Mobility (local PI);
- 1993-97 ESF/FBP Scientific Programme *Mathematical Treatment of Free Boundary Problems*, European Science Foundation, (co-proposer and global co-ordinator);

- 1998-99 Project Praxis/2/2.1/MAT/125/94 *Análise local e global das equações diferenciais. Fundamentos e aplicações* (PI);
- 1997-00 INTAS 96-0835 *Mathematical problems in non-linear mechanics of solids and fluids* (local PI), Univ. Saarland (M Fuchs, global co-ordinator).
- 1998-01 Programatic FCT Funding of *Centro de Matemática e Aplicações Fundamentais*, Universidade de Lisboa (PI).
- 2001-04 Project POCTI/MAT/34471/99, *Nonlinear Partial Differential Equations and Interfaces Problems*, CMAF/Universidade de Lisboa (PI).
- 2006-09 JEM (*Joining Educational Mathematics*) E-Content Plus Thematic Network, co-ordinated by the University of Helsinki (Steering Committee)
- 2013 - *Mathematics of Planet Earth*, Portuguese component of the international initiative at the Museu Nacional de História Natural e da Ciência, University of Lisbon.

11. Organization of Conferences, Summer Courses and other Meetings:

- 1987 - International Colloquium *Anastácio da Cunha (1744-1787), the Mathematician and the Poet*, Lisbon, Portugal
- 1988 - European Workshop on *Mathematical Models for Phase Change Problems*, Óbidos, Portugal
- 1990 - National Meeting *SPM/1940-1990*, commemorating the 50th anniversary of the Portuguese Mathematical Society, Lisbon, Portugal
- 1991 - Summer School on *Mathematical Topics in Fluid Mechanics*, Lisboa, Portugal
- 1992 - ESF Workshop on *Mathematical Treatment of Free Boundary Problems*, Cascais, Portugal
- 1993 - Executive Committee Meeting of the *European Mathematical Society*, Lisbon, Portugal
- 1994 - International Symposium on *Trends in Applications of Mathematics to Mechanics*, Lisbon, Portugal
- 1995 - International Seminar on *History of Mathematical Sciences: Portugal and the East*, Arrábida, Portugal
- 1996 - ESF/FBP Workshop on *Crystal Growth*, Oberstaufen, Germany
- 1997 - International Seminar on *Museums of Science and Technology*, Arrábida, Portugal
- 1998 - ESF/FBP Workshop on *Mathematical Treatment of Free Boundary Problems*, Funchal, Portugal
- 1998 - Luso-Chinese Symposium on *Nonlinear Evolution Equations and Applications*, Macao, China
- 1999 – Thematic Semester (March-October) on *Nonlinear Partial Differential Equations and Applications*, Lisbon, Portugal, including:
- NPDE Workshop on *Interfaces in Continuous Media*
 - NPDE Workshop on *Nonlinear Parabolic Problems*
- 1999 - Fourth Diderot Mathematical Forum on *Mathematics and Music*, Lisbon-Paris-Vienna, (*Historical Aspects*, component held in Portugal and general co-ordination)
- 2000 - International Conference in the framework of the WMY2000 on *Mathematics and its Role in Civilization*, Macao, China
- 2000 - Euro-Summer CIM-CIME School on *Mathematical Aspects of Evolving Interfaces*, University of Madeira, Funchal, Portugal
- 2000 - EU TMR- Network Summer School on *Mass Transportation Methods in Kinetic Theory and Hydrodynamics*, Ponta Delgada (Azores), Portugal
- 2000 - Workshop on *Multimedia Tools for Communicating Mathematics*, Universidade de Lisboa, Portugal
- 2002 - Interdisciplinary conference *NEXUS 2002- Relationship between Architecture and Mathematics*, Óbidos, Portugal
- 2003 - International Conference on *Trends in Partial Differential Equations of Mathematical Physics*, held in 7-10 June 2003 in Óbidos, Portugal, on the occasion of the 70th birthday of Vsevolod A. Solonnikov.

- 2003 - Two Minisymposia at ICIAM 2003, Sydney, on *Free Boundary Problems* (with D. Hilhorst) and on *Advanced Collaborative and Visualization Environments* (with J. Borwein and K. Polthier).
- 2005 – International Conference on *Free Boundary Problems: Theory and Applications*, held in 7-12 June 2005 in Coimbra, Portugal.
- 2006 – Workshop on *Communicating Mathematics in the Digital Era*, held in 15-18 August 2006 in Aveiro, Portugal.
- 2007 - JEM-TN Workshop on “*e+Calculus*”, held in 8-10 February 2007, in Lisbon.
- 2007 – CIM-UM Summer School on “*Topics in Nonlinear PDEs*”, held in 22-27 July 2007, in Coimbra, Portugal.
- 2007 – International Conference on *The Future of Mathematical Education in Europe*, held in 17-18 December 2007, in Lisbon, Portugal.
- 2008 – EIMI (*Educational Interfaces between Mathematics and Industry*) IPCommittee Meeting, held in 2-5 October 2008 in Óbidos, Portugal.
- 2009 – The Mathematics of Darwin Legacy, 23-24 November, Lisbon, Portugal
- 2010 – Educational Interfaces between Mathematics and Industry, ICMI/ICIAM Study conference, Lisbon 11-15 October 2010
- 2011– Elementary Geometry from an Advanced Point of View, 1-3 September, Aveiro, Portugal
- 2013— Nonlinear PDEs in Continuum Mechanics, 6-7 June 2013, Lisboa, Portugal
- 2014—Progress in Nonlinear Partial Differential Equations, 29-31 May 2014, Lisboa, Portugal

12. Public Awareness of Mathematics:

- 2000/02 Co-ordination and presentation of the Mathematics Itinerant Exhibition *Beyond the Third Dimension*; started in Óbidos, circulated in Portugal and visited the IMPA, Rio de Janeiro, Brazil, in 2001 <http://alem3d.obidos.org/en/>
- 2002 – Co-editor of “*Multimedia tools for communicating mathematics*” (with J. Borwein, M. H. Morales and K. Polthier), Springer-Verlag, Berlin, 2002. Viii +314 pp +1 CD-Rom.
- 2007 - Co-author of the prototype Hypervideo “*A história de PI*”; in development in collaboration with T. Apostol (Caltech), S. Nápoles. L. Santos and T. Chambel (Lisbon)
- 2010 – Raising the Public Awareness in Mathematics – CIM-RPA/EMS Workshop, Óbidos, Portugal, 26-29 September
- 2010 – Idea and Conception of LPD-UHW, a 9’30’’ film of art and mathematics on elliptic curves and cryptography, produced by CIM in collaboration of MFOberwolfach and Casa da Animação.
- 2012 – Co-author of the Mathematics Exhibition “*Formas & Fórmulas*”, Museu Nacional de História Natural e da Ciência, University of Lisbon, Portugal.
- 2012 – Co-author of the interactive module “*Rhumb Lines and Spirals*”, present at the Mathematics exhibition at UNESCO, Paris, April 2013.
- 2014 – Chairman of the ULisbon celebrations of centenary of “*José Sebastião e Silva (1914-1972)*”

13. Selected (short term) Visiting Appointments and Conference Invitations:

- 1979/80 - Univ. Paris VI, French Government Fellowship, Advisor: G. Duvaut
- 1981 - Montecatini, Italy, Conference on *Free Boundary Problems*
- 1982 - Univ. Bonn, Postdoctoral Mentor: H.W. Alt
- 1983 - Univ. Pavia and Florence, Postdoctoral Mentor: C. Baiocchi
- 1984 - IMA/Univ. Minnesota; AMS meeting on *Nonlinear Problems in Mechanics*
- 1985/87/89/93/95/99/02 - Oberwolfach Math. Inst. Meetings
- 1986 - Durham, UK, LMS Symposium on *Nonclassical Continuum Mechanics*
- 1987 - Xanthi, Greece, EQUADIFF-87 conference
- 1988 - Univ.s Metz and Nancy, Conf. *Nonlinear Elliptic and Parabolic Problems*
- Univ.s Suzhou and Tsinghua (Peking), China

- 1989 - Irsee/Bavaria, Conference on *Flow and Transport through Porous media*
- 1990 - Montreal, Canada, Conference on *Free Boundary Problems*
- 1991 - Pont-à-Mousson, France, Conf. *Nonlinear Elliptic and Parabolic PDEs*
 - IMA/Univ. Minnesota
- 1992 - Ecole Polytechnique, France
 - Iwaki, Japan, Conference on *Nonlinear Mathematical Problems in Industry*
- 1993 - Toledo, Spain, Conference on *Free Boundary Problems*
 - Hanoi, Vietnam, Conference on *Applied Analysis*
- 1994 - Banach International Mathematical Center, Warsaw, Poland
- 1995 - Zakopane, Poland, Conference on *Free Boundary Problems*
- 1996 - Courant Institute, New York University
 - Steklov Math.Inst. (POMI), St.Petersburg
- 1997 - Scuola Norm Sup. Pisa, Confer. on *Variational Problems with Free Interfaces*
 - Paris, IUTAM Symposium *Variations of Domain and FBP in Solid Mechanics*
- 1998 - Oxford Univ, UK, Meeting on *Free Boundary Problems and Hele-Shaw Flow*
- 1999 - Freiburg, Germany, Interphase Conference on *Numerics Meths. for FBPs*
- 2000 - Inst. Math. Academia Sinica, Peking
 - Erwin Schrödinger Institute, Univ. Vienna
 - RIMS Kyoto Univ. Conference on *Reaction Diffusion Problems*
- 2001 - University of Texas at Austin
 - Newton Institute, Univ. Cambridge, UK
 - Yellow Mountain, China, Conference on *Nonlinear Evolution PDEs*
- 2002 - IMPA, Rio de Janeiro, Brasil
 - St.Petersburg, NSEQ-8 Conference *Navier-Stokes Equations and Applications*
- 2002/03 - Institut des Hautes Etudes Scientifiques, France
- 2003 - Australian National University, Canberra, Australia
 - KTH Technical University of Stockholm, Sweden
- 2004 - NCTS, Taiwan, Inter. Conf. *Elliptic and Parabolic Problems: Recent Advance.*
 - Mathematical Inst., Almaty, Acad. Sciences Kazakhstan
 - INdAM Workshop *Dissipative Models in Phase Transitions*, Cortona, Italy
- 2005 - Univ. Ferrara, Italy, Confer. "*PDEs and Applications*"
 - Univ. Bonn, Germany, Confer. "*FBPs and Nonlinear PDEs*"
 - WIAS, Berlin, Confer. "*Dynamics of Phase Transitions*"
- 2006 - Halifax, Canada, AARMS/Dalhousie Atlantic Analysis Conference
 - Workshop *Mathematical Models for Special Materials*, Salò, Italy
 - Intern. Conf. *New Trends in Viscosity Solutions and Nonlinear PDEs*, Lisbon
 - Univ Paris-Sud, France, *Journée d'Analyse Non Linéaire*
- 2007 - ICIAM - 07 Minisymposium "FBPs and Their Applications", Zurich
 - K-H Hoffmann Symposium, TU Munich
 - MAMOS Workshop, Univ Texas at Austin, USA
 - Inter. Conf. *Nonlinear Phenomena with Energy Dissipation*, Chiba, Japan
- 2008 - Univ Bordeaux, France, *Recent Progress in Front Propagation and Applications*
 - Inter. Conf. *Free Boundary Problems (FBP_08)*, Stockholm, Sweden
 - Inter. Conf. *Parabolic and Navier-Stokes Equations 2008*, Bedlewo, Poland
 - Inter. Workshop *Phase Transitions and Optimal Control*, Berlin
 - 5th JEM Workshop *Impact of ICT on Teaching Mathematics*, Paris
- 2009 - Fields Institute for Research in Mathematical Sciences, Toronto, Canada
- 2010 - Mathematisches Forschungsinstitut Oberwolfach, Germany
 - IMPA (Instituto de Matemática Pura e Aplicada) Rio de Janeiro, Brasil
- 2011 - Fudan University, Shanghai, China
- 2012 - 6th European Congress of Mathematics, Krakow, Poland
 - ICME-12 International Congress in Mathematical Education, Seoul, Korea

- 2013 – 2nd International Conference of Mathematics in Armenia, Tsaghkador, Armenia
 Real Academia de Ciencias de Madrid, Spain
 2014 – Newton Inst. on “*Free Boundary Problems and Related Topics*”, Cambridge.
 – Steklov Mathematical Institute, St.Petersburg, Russia.
 2015 – UFRJ and IMPA, Rio de Janeiro, Brasil.

14. Mathematical interests:

Nonlinear Analysis and Partial Differential Equations, Free Boundary Problems, Mathematical Analysis of Continuum Physics Models, History of Mathematics, Educational Mathematics, Multimedia and Communication of Mathematical Sciences, Public Awareness of Mathematics.

Scientific Publications

15. Books

a) **As author** *Obstacle Problems in Mathematical Physics*, North-Holland Mathematical Studies, n°134, Amsterdam, 1987, xvi + 352 pp.

b) **As editor or co-editor**

1. “*Mathematical Models for Phase Change Problems*”, (Editor), ISNM n°88, Birkhäuser Verlag, Basel, 1989, xii + 412 pp.
2. “*Anastácio da Cunha (1744-1787) - O matemático e o poeta*”, (co-editor with M.L. Ferraz e L. Saraiva), Imprensa Nacional/Casa da Moeda, Lisboa, 1990.
3. “*Mathematical Topics in Fluid Mechanics*”, (co-editor with A. Sequeira), Pitman Research Notes in Maths. (Longman), 1992, ix+262 pp.
4. “*Trends in Applications of Mathematics to Mathematics*”, (co-editor with M.M. Marques), Longman, Harlow, 1995, viii+364 pp.
5. “*Museums of Science and Technology*”, (co-editor with M.A.A.Ferreira), Fundação Oriente, Lisboa, 1998, 192 pp.
6. “*Free Boundary Problems, Theory and Applications*”, (co-editor with I.Athanasopoulos and G.Makrakis), CRCPress, Boca Raton, 1999, xii+355 pp.
7. “*Nonlinear evolution equations and applications*”, (co-editor with Li Tatsien and Lin Longwei) World Scientific, Singapore, 1999, x+321 pp.
8. “*Multimedia tools for communicating mathematics*” (co-edited with J. Borwein, M. H. Morales and K. Polthier), Springer-Verlag, Berlin, 2002. viii+314 pp+1 CD-Rom.
9. “*Nexus IV: Architecture and Mathematics*” (co-edited with Kim Williams), KWBooks, Florence, 2002, 268 pp.
10. “*Mathematics and Music. A Diderot Mathematical Forum*”, (co-edited with G.Assayag and H.-G.Feichtinger) Springer-Verlag, Berlin, 2002. xvii+288 pp.
11. “*Mathematical Aspects of Evolving Interfaces*”, (co-edited with P. Colli) Lect. Notes in Mathematics, Springer-Verlag, Berlin, 2003
12. “*Recent Advances in the Theory and Applications of Mass Transport*”, (co-edited with M.C.Carvalho), Contemporary Mathematics #353, American Mathematical Society, 2004.
13. “*Trends in Partial Differential Equations in Mathematical Physics*”, (co-edited with G.Seregin and JM Urbano), Birkhauser, Basel 2005
14. “*Free Boundary Problems, Theory and Applications*”, (co-editor with I. Figueiredo and L.Santos), ISNM vol 154, Birkhauser, Basel 2007
15. “*Communicating Mathematics in the Digital Era*”, (co-editor with J. Borwein and E. Rocha), AKPeters, Wellesley, MA, 2008
16. Proceedings EIMI 2010 (*Educational Interfaces between Mathematics and Industry*), (co-editor with A Araújo, A Fernandes and A Azevedo, Centro Internacional de Matemática, Portugal and COMAP, Inc. Bedford, MA USA, ISBN-10:1-933223-64-2.
17. “*The Mathematics of Darwin’s Legacy*”, co-editor with F. Chalub, Birkhauser, Basel 2011.
18. “*Educational Interfaces between Mathematics and Industry*”, co-editor with A. Damllamian and R Strässer, Springer, 2013

16. Papers in journals and in books

- 1) "Sur un problème à frontière libre stationnaire traduisant la cristallisation d'un métal", C.R. Acad. Sc. Paris 290-A (1980), 823-825.
- 2) "Sur le comportement asymptotique de la solution et de la frontière libre d'une inéquation variationnelle parabolique". Ann. Fac. Sc. Toulouse, 4 (1982), 263-279.
- 3) "On the free boundary of the evolution dam problem", Research Notes in Maths. (Pitman) 78 (1983), 125-134.
- 4) (with M. Codegone) "Convergence of the coincidence set in the homogenization of the obstacle problem", Ann. Fac. Sc. Toulouse 3 (1981), 275-285.
- 5) (with M. Codegone) "On the homogenization of the rectangular dam problem", Rend. Sem. Mat. Univ. Pol. Torino, 39 n°2 (1981), 125-136.
- 6) "Free Boundary Convergence in the Homogenization of the One Phase Stefan Problem". Trans. Amer. Math. Soc. 274 (1982), 297-305.
- 7) (with M. Chipot) "On the steady-state continuous casting Stefan problem with nonlinear cooling", Quaterly Appl. Math. 40 (1983), 479-491.
- 8) "On the dam problem with boundary leaky condition", Portugaliae Math., 39 (1980), 399-411.
- 9) "Stabilité de la frontière libre dans le problème de la digue". C.R. Acad. Sc. Paris, 294-I (1982), 565-568.
- 10) "On the stability of the free boundary in the obstacle problem for a minimal surface", Portugaliae Math., 41 (1982) 463-480.
- 11) (with Marco Codegone) "Homogenization of the dam problem with layer structure", Research Notes in Mathematics (Pitman), 78 (1983), 98-104.
- 12) "Some remarks on the asymptotic behaviour of strong solutions to monotone parabolic variational inequalities", Rendiconti di Matematica, (VII) 4 (1984), 458-470.
- 13) "On the stability of the obstacle plateau problem on locally pseudoconvex domains", Astérisque (SMF) 118 (1984), 211-218.
- 14) "Some remarks on the homogenization of the dam problem", manuscripta mathematica, 46 (1984), 65-82.
- 15) (with D. Kröner) "Global behaviour for bounded solutions of a porous media equation of elliptic-parabolic type", J. Math. Pures et Appl. 64 (1985), 105-120.
- 16) "Aspects of the variational approach to the continuous casting problem", Research Notes in Maths. (Pitman) 120(1985), 72-83.
- 17) "On a class of parabolic unilateral problems", Nonlinear Analysis, Th. Meth. & Appl. 10 (1986), 1357-1366.
- 18) "A steady-state Boussinesq-Stefan problem with continuous extraction". Annali Mat. Pura ed Applicata (IV) 144 (1986), 203-218.
- 19) "An evolutionary continuous casting problem of Stefan type", Quaterly Appl. Math. 44 (1986), 109-131.
- 20) (with B. Louro) "Remarks on the quasi-steady one phase Stefan problem", Proc. Royal Soc. Edinburg, 102-A (1986), 263-275.
- 21) "Strong stability results for the evolution obstacle problem with Neumann condition" Le Matematiche (Catania) XL (1985), 29-44.(1988)
- 22) "On the variational inequality approach to the one phase Stefan problem", "Acta Applicandae Mathematica", 8 (1987), 1-35.
- 23) "A unilateral thermoelastic Stefan-type problem", Portugaliae Math., 45 (1988), 91-103.
- 24) "Free boundary stability in the one phase Stefan problem", in "Nonlinear Analysis & Applications"; Ed. Lakshmikantham, Marcel Dekker, N.Y., 1987, Chap.66, pp.572-531.
- 25) "On the homogenization of some free boundary problems". *Nonclassical continuum mechanics (Durham, 1986)*, London Math. Soc. Lecture Note Ser., 122, Cambridge Univ. Press, Cambridge, (1987) 303--315.
- 26) (with M. Chipot) "Comparision and stability of solutions to a class of quasilinear parabolic problems", Proc. Royal Soc. Edinburg, 110A (1988), 275-285.

- 27) (with L. Santos) "Asymptotic convergence in a one phase continuous casting Stefan problem with high extraction velocity", *I.M.A. J. Appl. Math.* 42 (1989), 251-267.
- 28) "Some remarks on the quasi-linear non-coercive elliptic obstacle problem", in "Recent advances in nonlinear elliptic and parabolic problems", Pitman Research Notes in Maths. (Longman) 208 (1989), 319-332.
- 29) "Singular Perturbations in Obstacle Problems", *Proceedings BAIL-V, Shanghai Conf.*, ed. by B.Guo, J.Miller & Z.Shi, Boole Press, Dublin (1988), 299-303.
- 30) "On the continuous dependence for the capillary problem with obstacle", in "Differential Equations", C.M.Dafermos, G.Ladas & G.Papanicolaou (Editors), M. Dekker, New York, (1989), 605-612.
- 31) (with P. Colli) "A perturbation problem related to the highly compressible behaviour of a fluid in a thin layer", *Applicable Anal.*, 33 (1989), 191-201.
- 32) "The Stefan problem revisited", *Int. Ser. Numer. Math. (Birkhäuser)* 88 (1989), 129-190.
- 33) (with P. Colli) "Diffusion through thin layers with high specific heat", *Asymptotic Anal.*, 3 (1990), 249-263.
- 34) (with Yi Fahuai) "On a two-phase continuous casting Stefan problem with nonlinear flux", *European J. Appl. Math.* 1 (1990), 259-278.
- 35) "On a steady-state two-phase Stefan problem with extraction", *Int. Ser. Numer. Math. (Birkhäuser)* 95 (1990), 229-240.
- 36) "A steady state solidification problem for a non-Newtonian fluid", *Pitman Research Notes in Maths. (Longman)* 186 (1990), 699-702.
- 37) (with M. Chipot) "On a class of nonlocal nonlinear elliptic problems", *RAIRO Modél. Math.Anal.Numer.*, 26 (1992) 447-468.
- 38) (with P. Colli) "Hyperbolic perturbation problems involving time derivatives on the boundary", *Forum Mathematicum*, 3 (1991), 205-218.
- 39) "Remarks on the Reynolds problem of elastohydrodynamic lubrication", *European J. Appl. Math.*, 4 4 (1993), 83-96.
- 40) "On a quasi-variational inequality arising in semiconductor theory", *Rev. Mat. Univ. Complutense Madrid*, 5 (1992), 137-151.
- 41) (with B. Zaltzman) "On classical solutions of the two-phase steady-state Stefan problem in strips", *Nonlinear Analysis, Th. Meth. & Appl.* 19 (1992), 207-218.
- 42) "Strong solutions for quasi-linear elliptic-parabolic problems with time-dependent obstacles", *Pitman Research Notes in Maths. Ser. (Longman)* 266 (1992), 70-82.
- 43) "A nonlinear parabolic system arising in thermomechanics and in thermomagnetism", *Math. Models & Meth.Appl. Sci.*, 2 (1992), 271-281.
- 44) "Weak solutions for thermoconvective flows of Boussinesq-Stefan type", *Pitman Research Notes in Maths.Ser., (Longman)* 274 (1992), 93-116.
- 45) (with S.Howison & M.Shillor) "Stationary solutions to the thermistor problem", *J. Math. Anal. Appl.* 174 (1993), 573-588.
- 46) "On the free boundary of a two-phase Stefan problem with convection", *Pitman Research Notes in Maths. Ser. (Longman)* 281 (1993), 143-148.
- 47) (with M. Primicerio) "The Hele-Shaw problem with nonlocal injection condition", *Gakuto Int. Ser. Math. Sci. Appls. Vol. 2* (1993) 375-390.
- 48) (with A. Bossavit) "On the electromagnetic induction heating problem in bounded domains", *Adv. Math. Sci. Appl.* 3 (1994), 79-92.
- 49) "Variational Methods in the Stefan Problem", *Lecture Notes in Mathematics #1584*, Springer Verlag, Berlin, (1994), 147-212.
- 50) (with Li Ta-Tsien & Zhu Chen) "Limit behaviour of solutions to a class of nonlinear and nonlocal boundary value problems", *Asymptotic Analysis* 9 (1994) 297-310.
- 51) (with Liang Jin) "Existence of solutions for quasilinear weakly coercive elliptic variational inequalities", *J.Partial Diff.Eqs.* 8 (1995), 205-210.
- 52) (with B. Zaltzman) "Free boundary optimal control in the multidimensional Stefan problem", *Pitman Research Notes in Maths.Ser., (Longman)* 323 (1995), 186-194.

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